

## ABSTRACT

Methods and apparatus for implementing peer-to-peer relay. In one implementation, a network environment supporting multiple peer-to-peer relay networks includes: a first peer-to-peer relay network including N1 peer systems; and a second peer-to-peer relay network including N2 peer systems; wherein each peer system in said first peer-to-peer relay network is connected to a number of other peer systems in said first peer-to-peer relay network that is less than or equal to a first connection limit, said first connection limit is greater than or equal to 2, said first connection limit is less than or equal to N1-2, each peer system in said first peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a first set of one or more relay rules, each peer system in said second peer-to-peer relay network is connected to a number of other peer systems in said second peer-to-peer relay network that is less than or equal to a second connection limit, said second connection limit is greater than or equal to 2, said second connection limit is less than or equal to N2-2, each peer system in said second peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a second set of one or more relay rules, and at least one peer system in said first peer-to-peer relay network is also in said second peer-to-peer relay network.